1999 Population Estimates for Utah

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Utah's population reached just over 2,121,000 persons in 1999, according to the Utah Population Estimates Committee. This is an increase of approximately 38,500 persons (slightly smaller than the population of Bountiful, Utah) or 1.9 percent over the 1998 estimate of approximately 2,082,500.[1] With the national population increasing by an estimated 0.9 percent during 1999, the pace of population growth in Utah continues to be roughly twice that of the nation. Utah's population still ranks 34th in the nation, as it has since 1992, and the Census Bureau once again ranked Utah as one of the nation's fastest growing states. From July 1998 to July 1999, Utah had the eighth largest growth rate in the nation.[2] Compared to the rest of the country, Utah's population growth is characterized by a high birth rate and low death rate.

The state's growth during 1999 is composed of the highest number of births (45,434), second highest number of deaths (11,636), and resultant largest natural increase of 33,798 (the number of births minus the number of deaths) ever recorded in state history. Net migration during 1999 of 4,753 was higher than expected and is more than three times the level estimated during 1998 of 1,271. While many economic indicators show the economy has moderated slightly since last year, demographic indicators such as public and private school enrollment, LDS church membership, tax exemptions, building permits, and utility connections suggest the population increased at a slightly higher rate than last year due to both higher natural increase and net migration.

This article presents the official population estimate for the state, multi-county districts, (MCDs) and Utah's 29 counties, and discusses the method used to develop the estimates. The 1999 estimates and the historical context of Utah's population growth are discussed. Details are provided on the components of population change, as well as the methods used to prepare these estimates. The final section describes the estimates prepared and the methods used by the U.S. Bureau of the Census to produce population estimates, along with an explanation of how the 2000 Census will affect population estimates in Utah.

1999 Estimates

As Table 1 and Figure 1 show, Utah has now experienced nine consecutive years of net in-migration. The 1999 level of 4,753 more people moving into the state than out is down significantly from the record 22,788 observed during 1994, however, this represents a nearly four fold increase of net in-migration from 1998. During the past nine years, the number of people moving into the state is estimated to exceed the number moving out by nearly 130,000, which is about 30,000 more people than live in Sandy City. Even with this large net in-migration, more than 65 percent of Utah's population growth since 1990 has come from natural increase, which is the difference between births and deaths. Natural increase since 1990 totals over 260,000, while total population growth has been over 390,000.

The most rapid growth in Utah occurred to counties within or adjacent to the northern metropolitan region, counties in the southwest portion of the state, and the lightly populated counties of Piute, Daggett, and Wayne (Table 2 and Figure 2). The highest rates of population

[1] The 1998 population estimates and some components of population change for the state and counties were revised due to updated natural increase data from the Department of Health.
[2] This is based on Bureau of the Census state by state rankings.

growth during 1999, ranked in descending order, are as follows:

Tooele (8.0%)
Piute (4.0%)
Utah (3.8%)
Washington (3.6%)
Daggett (3.4%)
Iron (3.4%)
Beaver (3.3%)
Wayne (3.2%)
Summit (3.1%)
Wasatch (3.0%)

Expanding Urban Area

The populations in Tooele, Utah, Wasatch, Summit, Morgan, and Davis counties continue to expand quite rapidly. This growth illuminates the degree to which the Wasatch Front and Back are becoming increasingly more urbanized. The semi-rural counties surrounding the Wasatch Front urban area are growing faster than the urban core. Indeed, although Utah County continues to be one of the fastest growing counties in the state, much of this growth reflects the urbanization of previously semi-rural parts of the county.

To a large extent, the growth in the counties on the urban periphery results from the expansion of the Wasatch Front urban area. People in these counties are in close proximity to urban services, but are still able to enjoy many of the desirable characteristics found in a rural setting. While these peripheral areas will retain their rural character for the foreseeable future, their growth will be increasingly tied to the urban core. The growth in these outlying areas is often referred to as a "donut effect," and this phenomenon is clearly visible in Figure 2.

County Highlights

Tooele County

Tooele County was the fastest growing county in the state during 1999 with a sizzling 8.0 percent rate of growth. At this rate, Tooele County grew four times as fast as the state average of 1.9 percent and twice as fast as the second fastest growing county (Piute). Estimated net in-migration to the county of approximately 2,000 people was the highest recorded in the county in over 50 years.

Utah County

The population in Utah County, estimated at approximately 353,100, increased at nearly twice the rate of the state. It is the state's second largest county and the third fastest growing county during 1999. This is an unusual ranking for such a large county. For the fourth year in a row, Utah County experienced more net in-migration than any county in the state. An estimated 4,800 more people migrated into the county than moved away.

Salt Lake County

Approximately 40 percent of the state resides in Salt Lake County with a 1999 population of roughly 843,300. While a significant number of residential building permits were issued in the county during 1998 (the relevant year for 1999 population estimates because of the time it takes to build a home), the growth in permits has dropped from levels experienced a few years ago. An estimated 5,400 more people reside in the county in 1999 than 1998, but all of this is attributable to births since an estimated 7,000 more people migrated out of the county during 1999 than moved in.

Beaver, Washington, and Iron Counties

Southwest Utah continues to generate very rapid rates of population growth. Three of the seven fastest growing counties in the state – Beaver, Washington, and Iron – are all located in Southwest Utah. Of these, Washington regained its claim as the fastest growing county in the region after surrendering that distinction temporarily to Iron County last year. With a 1999 rate of growth of 3.6 percent, however, growth in Washington County has slowed significantly from the 8.0 percent rates recorded as recently as four and five years ago.

Carbon, Emery, Millard, and San Juan Counties

The population in Carbon, Emery, Millard, and San Juan counties declined slightly during 1999. The economies in these counties are energy-dependent and population change frequently reflects the relative performance of the coal, oil, and natural gas industries. Extremely low oil prices, which lasted through mid-year 1999, coupled with dramatically increasing productivity in Utah's coal mining industry, explain the lack of population growth in these counties and the suppressed growth in the other energy-dependent counties of Uintah and Duchesne.

Historical Context

Utah's population reached 1 million during 1966 and 2 million during 1996, 30 years later. Table 3 presents the population estimates for the state, the MCDs, and the counties since 1940 for selected years. During this period, the state's fastest growth occurred during the 1970s, when the population increased at a 3.3 percent average annual rate. During the 1940s and 1950s, the state's population increased about 2.5 percent per year, which contrasts with the 1960s and 1980s, when the population increased less than 2.0 percent per year. At around 2.5 percent per year, the 1990s growth rates represent a return to the relatively high rates of growth seen during the 1940s and 1950s, although they are still substantially below the growth of the 1970s. Based on the growth experienced so far in the decade, the population of Utah is expected to have grown by about 430,000 in the 1990s. This will be the largest population increase of any decade in the history of the state of Utah.

Reflecting the fact that it has almost half of Utah's population, Salt Lake County's growth pattern is most closely synchronized with that of the state. As with the state as a whole, Salt Lake County experienced fairly rapid growth during the 1940s, 2.7 percent per year, even more rapid growth during the 1950s, 3.3 percent per year, a slowdown in the 1960s, 1.8 percent per year, rapid growth during the 1970s, 3.1 percent per year, another slowdown in the 1980s, 1.5 percent per year, and a leveling of growth during the 1990s, 1.6 percent per year. Salt Lake

County deviated slightly from the state in that the growth of the 1950s was relatively more rapid compared to other periods, while the growth of the 1970s and 1990s was relatively slower compared to other periods.

A number of counties have had growth patterns substantially different from the state's. While Utah's population grew very strongly in both the 1940s and the 1950s, 12 counties actually had declining populations in both decades. Juab County's population had the greatest percentage decline during this period, about 2.5 percent per year, from 7,400 in 1940 to 4,500 in 1960. During 1996, Juab's population finally surpassed the 1940 level. In contrast to Juab, the current populations in Garfield, Piute and Rich counties continue to be lower than in 1940. Although the 1960s and 1980s were slow growth periods for the state as a whole, some counties still grew extremely rapidly during these two decades. During the 1960s, Davis and Morgan counties grew at more than twice the state average, 4.3 and 3.8 percent per year, respectively, while Washington and Summit counties grew at more than twice the state average during the 1980s, 6.4 and 4.2 percent per year, respectively.

Components of Population Change

Population change is comprised of two components: natural increase and net migration. In turn, both of these have two components as well. Natural increase is the number of births less the number of deaths. Net migration is in-migration less out-migration, or the number of people moving into a place less the number of people moving out. Table 1 and Figure 1 present the components of Utah's population change from 1940 to 1999, and from 1950 to 1999, respectively, as of July 1 each year. Table 2 presents the components of population change from 1998 to 1999 for the counties and MCDs.

Natural Increase

Natural increase is computed from records maintained by the Utah Department of Health, Bureau of Health Statistics. As presented in Table 1, natural increase in Utah during 1999 was 33,798, which was the difference between 45,434 births and 11,636 deaths. The largest natural increase recorded since 1950 was 33,514 in 1980. The largest number of births, however, was during this past year. Of course, the reason the natural increase was larger in 1980 than in 1999, even though there were more births last year is that the number of deaths was proportionately higher in 1999. While the number of births has varied dramatically from one period to the next, the number of deaths, for the most part, has increased slowly and steadily since 1950.

Net Migration

Net migration is positive when in-migration exceeds out-migration and negative when out-migration exceeds in-migration. When net migration is positive, net in-migration has occurred and when net migration is negative, net out-migration has occurred. In the population estimates developed by the Utah Population Estimates Committee, net migration is not estimated directly. Rather, net migration is computed as the implied difference between estimated population change and natural increase as computed from the records maintained by the Department of Health. No attempt is made to estimate net migration directly. In addition, no attempt is made to estimate the components of net migration, in-migration and out-migration.

Thus far, the 1990s have been a period of sustained net in-migration. While the past decade has been a period of high absolute in-migration, migration rates (net migration as a percent of the base or previous year population) were higher during the 1970s, as well as a few years in the 1950s and 1960s.

While it is not known for sure where the recent migrants came from, data from the Internal Revenue Service and the 1990 Census highlight some interesting points: California dominates the flow of interstate migration to and from Utah; the extended Salt Lake area has strong migration ties with the major metropolitan areas south and or west of Utah, such as Los Angeles, Phoenix, Portland, Seattle and Las Vegas; and, employment-related migration accounts for the vast majority of population movement to and from Utah.[3]

The recent easing of in-migration to Utah can be explained by a general moderation in economic activity locally and improving economic conditions in other states, particularly California. California is now in its fourth year of an economic expansion, after a deep recession in the early part of this decade.

Utah Population Estimates Committee

The Utah Population Estimates Committee develops and agrees upon the official population estimates for Utah and the 29 counties in the state. Coordination and staffing of the Committee is the responsibility of the Demographic and Economic Analysis Section of the Governor's Office of Planning and Budget. Membership includes representatives from state government, universities, and other organizations with knowledge of the data used in making population estimates. A list of members appears on the back cover.

The Committee has a rich, enduring legacy of preparing population estimates at the state and county level.[4] This legacy stretches over 45 years. After operating for most of its history as a state department formed committee, Governor Leavitt officially sanctioned the Committee and clarified its purposes and responsibilities in 1997 by issuing an Executive Order. The Committee is also recognized in state statute as the source for population estimates used in state funding formulas when Bureau of the Census estimates are unavailable.

In addition to staffing the Population Estimates Committee, the Demographic and Economic Analysis section represents the state in the Federal-State Cooperative for Population Estimates. This program, administered by the U.S. Bureau of the Census, facilitates the exchange of data used in making population estimates. The program also provides a forum for dialog that can improve the quality of state and county estimates made by both parties. Bureau of the Census population estimates by county are discussed later in this article.

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3 For more detail on the characteristics of the people migrating to and from Utah, see Governor's Office of Planning and Budget, Utah Migration Database: Sources, Methods, Limitations, and Analysis (Salt Lake City: Utah Governor's Office of Planning and Budget, June 1994).

4 For more information on the history and methods of the Utah Population Estimates Committee, see Governor's Office of Planning and Budget, Population Estimates: The Utah Experience (Salt Lake City, Natalie Gochnour, Chair, Utah Population Estimates Committee, September 1999).

Methods

The methods and data used by the Committee share similarities and differences with national standards of the time. UPEC, like the Bureau of the Census, has always relied heavily on the Component Method of population estimation. This method follows the standard demographic accounting equation of:

$$P_t = P_{t-1} + B_t - D_t + M_t$$

where P = population
B = births
D = deaths
M = net migration
t = time

For example, in the Component method, migration is estimated by comparing the actual and expected school-age population and relating this difference to the total population and total migration.[5] This method is referred to in Utah as the School Enrollment Method and it is a slightly modified version of what is commonly referred to in the literature as the Component II Method.[6]

UPEC develops population estimates using a combination of the Component II or school enrollment method, a method based on membership in the Church of Jesus Christ of Latter-day Saints (LDS), and a method based on tax return data from the Internal Revenue Service (IRS). Table 4 presents the population estimates and implied net migration resulting from each method. For the 1999 population estimate, the IRS method yielded the highest state total population, 2,132,972, followed by the school enrollment method, 2,126,424, and the LDS method, 2,103,620. As discussed in more detail below, the ultimate estimates were based on an adjusted average of the three methods.

UPEC's approach to considering the combination of the school enrollment, IRS, and LDS methods is presented in Table 5. The Committee decided not to include the estimate generated with a particular method if that method's estimate was more than 2 percent different from the estimate generated from the average of the three methods. If an estimate was 2 percent higher than the average, it was termed a high outlier. Likewise, if an estimate was 2 percent lower, it

[5]The Bureau of the Census currently utilizes a Component Method referred to as the Tax Return Method. This is an administrative records methodology that uses exemptions reported on Internal Revenue Service tax returns as an indicator of migration.

[6]The fundamental characteristic of the Component II Method is that migration of the total population is estimated based on (1) a comparison of the actual and the expected (survived) school-age population; and, (2) the historical relationship between school-age migration and total migration. There are many varieties of this fundamental method, including detailed estimation for subgroups of the population such as the population under age 65, population age 65 and over, and special military and institutional population groups. Utah's method is modified in the sense that it employs a level of detail (i.e. components) and input data (i.e. target grades and survival rate) that reflect Committee input.

was termed a low outlier. As presented in Table 5, UPEC used the average of the three methods in 25 of Utah's 29 counties. In the counties where two methods were considered, the estimate was based on the average of the two methods. The four counties in which UPEC used an estimate based on the average of two methods are Cache, Grand, Iron, and Summit.

School Enrollment Method

The school enrollment method uses changes in school enrollment as an indicator of net migration. This method compares a county's survived enrollment (calculated by applying a survival rate of 99.98 percent to the enrollment count), in grades 1 to 8 for the year prior to the estimate year, to enrollment in grades 2 to 9 for the estimate year. The difference between these two enrollment totals is taken to be net student migration for the county. Total net migration from the school enrollment method for the county is then derived by multiplying the county's student migration estimate by the county-specific total population-to-student ratio. This ratio is defined as the total population estimate of the county for the prior year divided by the same year's enrollment in grades 1 to 8.

In Utah, the Component II Method or School Enrollment Method is strengthened by the quality of the school enrollment data collected in the state. Utah's public school system is unique in that it serves an unusually high percentage of the total kindergarten through 12th grade enrollment (97.4 percent of total enrollment in Utah in 1995 was public – second highest among states – compared with 89.9 percent nationwide[7]). In addition, the public school system encompasses a large percentage of the total population (Utah, with 24 percent of its population 5-17 years old, has the highest percentage of its population of elementary and secondary school age of any state). Moreover, the public school system receives independent audits of enrollment data due to the equalized education funding mechanism utilized in the state.

LDS Membership Method

The Committee also relies on a second method called the LDS Membership Method. This method utilizes a data source uniquely relevant in Utah – membership records of the Church of Jesus Christ of Latter-day Saints (frequently called LDS or Mormons). The LDS Church graciously provides this confidential data in aggregate form; this means no names or individual records are revealed, but numerical counts by county are furnished. This data is provided for exclusive use in the formulation of population estimates and is *not shared by the Committee*. This method simply applies the growth rate in LDS membership in a particular county to the previous year's estimate for the county.[8]

The Committee is very fortunate to have access to the LDS membership data for estimate purposes. Approximately 69 percent of Utah's population is included in the membership counts of the LDS Church. These counts include every member of record, including children. The counts are not limited to those who attend church regularly. Rather, they include any member assigned to a local unit (church or ward) regardless of a given member's involvement with the

[7]Calculated from data provided by the U.S. Department of Education, National Center of Education Statistics. These calculations were published in *State Fact Finder 1999: Rankings Across America*, Congressional Quarterly.

[8]For more detail on all of the Utah Population Estimates Committee's methods see www/governor.state.ut.us/dea.

organization.

In addition to the broad coverage, the utility of the data is strengthened by its timeliness and quality. The originating file is a current file and an extract can be taken at any time. For estimation purposes, this means that there is essentially no delay or lag time between when the data are released and the reporting period. The accuracy of the data is ensured by the careful record keeping of church officials. Within the Mormon faith, leaders from each local unit (church or ward) have ecclesiastical responsibility for the individuals assigned. Hence, there is a religious stewardship that accompanies each membership record. This improves the accuracy of the aggregate data.

IRS Tax Exemption Method

In recent years, the Committee has utilized the Tax Exemption Method. This method uses the growth in exemptions as reported on tax returns filed with the Internal Revenue Service as an indicator of population change. The growth rate in exemptions for the previous calendar year is applied to the previous fiscal year population to estimate the current fiscal year population. The Committee developed the method after realizing that the School Enrollment and LDS Membership Methods were yielding unrealistically low population estimates during a time of significant economic expansion. Committee members felt that the estimates would be more accurate by incorporating a more economically sensitive methodology. This method is relatively accurate as long as the tax code is stable and the percent of the population filing tax returns does not vary dramatically from year to year.

Experimental Housing Unit Method

The Committee is currently considering the feasibility of using a fourth method, known as the housing unit method. Building permits have been collected from local governments for a number of years and their utility in making county and state level estimates is currently being evaluated. As the quality of building permit data continues to improve, Committee staff are organizing building permit data and producing experimental estimates. These estimates will be tested with the 2000 Census counts.

U.S. Bureau of the Census Population Estimates

The U.S. Bureau of the Census, Population Estimates Branch, prepares post-censal population estimates for states, counties and sub-county areas. These estimates use different methodologies and, in some cases, different base data than UPEC. Since estimates prepared by the Committee generally include more recent data, consider a variety of methodologies and information sources, and incorporate the informed judgement of local people who are familiar with local indicators of population growth, they are widely utilized as the preferred source.

Estimates prepared by the Bureau of the Census, however, may be preferred in applications that require comparisons with other states or when state statute or federal grant applications require their use. Utah statute explicitly states that Bureau of the Census numbers be used in calculating the state spending limitation and allocating local option sales taxes and class B and C road monies. Bureau of the Census estimates are also used by other federal data agencies and are currently the only statewide source of city estimates.

Generally, estimates prepared by the Bureau of the Census and the Utah Population Estimates Committee are reasonably close, although there are notable exceptions from year to year and county to county. The main differences in the two sources of estimates are the timing of input data, methodologies, and release of data. UPEC uses more current birth and death data, and draws from local data sources on school enrollment and LDS membership. The Bureau of the Census methods rely heavily on IRS tax return data (as an indicator of migration) and Medicare and group quarters data.[9]

There is a fairly significant difference in the estimation process of The Census Bureau and UPEC. The Census Bureau first develops a total U.S. population estimate using national vital records and migration estimates. These two databases are reliable and result in a reasonable estimate of the nation's population. The national population estimate includes detail by single year of age, sex, and race. Separately from the national estimate, an estimate for each county in the nation is developed. (The Census Bureau county estimate methodology is described in more detail below.) In a typical estimate year, in a typical county, estimates at the county level are developed for the population under age 65 and 65 and over. The totals of the 3,000 plus individual county population estimates for these two age groups are used to develop control factors. These control factors are then applied to each county estimate so the total of the controlled estimates equals the national population estimates for the two age groups. The process of controlling county population estimates to a separately determined national population estimate can introduce error to the estimating process. In addition, as described in more detail below, the Census made a number of special adjustments to its estimating technique for the counties in Utah. The resulting estimates are different from UPEC's.

In contrast to the Census, UPEC examines data at the county level for its methodologies. The state estimate is then simply the sum of the independently produced county estimates.

The Census Bureau recently revised state population estimates for 1990 through 1998 and produced new estimates for 1999. During the earlier part of the decade, the Census Bureau estimates at the state level were lower than UPEC's by as much as 0.5 percent. In recent years, however, the Census Bureau estimates have been as much as 1.0 percent higher than UPEC's. This reversal is the product of two reinforcing efforts. First, the Census has increased the population estimates of a number of Utah cities and counties in response to local government challenges. Second, in the early part of the decade, UPEC argued the Census state estimate was too low. By 1999, the effect of these efforts was that the Census state estimate of 2,129,836, for Utah, is 8,783, or 0.4 percent greater than the UPEC estimate of 2,121,053.

A comparison of the revised Census estimates for 1997 through 1999 with UPEC's estimates is presented in Table 6. Among the counties, the largest percentage differences between the Census and UPEC occur among relatively small counties such as Piute and Grand where the percentage differences are large, but numeric differences are small. The largest numeric difference is in Salt Lake County, where the Census estimates the 1999 population to be 850,243, which is 6,972 (or 0.8 percent) more than UPEC's estimate of 843,271.

[9] Bureau of the Census group quarters data is collected from places where people live or stay other than the usual house, apartment, or mobile home and it is collected by the state and by the Bureau.

In general, the Census methodology tends to underestimate population in major university-influenced counties, specifically Utah, Iron, and, in the past, Cache. This occurs because IRS migration data miss many student in-migrants (those who have not filed a tax return prior to attending college), but capture a large number of student out-migrants (those who now file a tax return and leave school, possibly with dependents). UPEC's methods, on the other hand, may not perform as well as some of the Census Bureau's techniques in counties with a proportionately smaller LDS population or counties where school enrollment is a poor indicator of migration.

Bureau of the Census Methods[10]

The Bureau of the Census uses a method known as the Tax Return method (previously called Administrative Records method) to derive county estimates. This procedure relies on federal income tax data to estimate the net inter-county migration of the population under 65 years old; Immigration and Naturalization Service data to estimate net foreign migration; reported resident birth and death statistics to estimate natural change; and data on Medicare enrollees to estimate the population 65 years and older. Estimates for the population living outside of households are estimated based on the decennial census and data provided by each state. People living outside households are known as the group quarters population. This population includes military personnel living in barracks, college students living in dormitories, inmates of correctional facilities, persons living in nursing homes or assisted care facilities, and others.

Tax data for two successive years are used to determine the number of persons whose county of residence changed during the period. From this series a net migration rate is calculated and applied to the household population base under age 65. The resultant estimates of net migration are combined with independent estimates of the population 65 years and over, the group quarters population, and the other components of population change (resident births and deaths, immigration from abroad, and net movement of military barracks personnel to the civilian population) to yield an estimate of total population.

Census 2000

The 2000 Census is currently underway. The Census Bureau is estimated to employ around 3,000 people in Utah alone to help with the enumeration. The Governor's Office of Planning and Budget is responsible for the state's efforts in promoting Census 2000. In order to ensure an accurate count, GOPB has undertaken several promotional activities such as preparing valuable research on the monetary value of the census, as well as making public presentations to local governments, community organizations, and key stakeholders throughout the state.

GOPB is also working with designated Census liaisons in state agencies and providing promotional items such as Census 2000 pencils, bookmarks, and posters for public distribution. Other outreach efforts include publishing a quarterly newsletter and maintaining a state of Utah Census 2000 website that includes information on confidentiality, local census contacts, employment, and even sample questionnaires. The state website displays the state logo and

[10]More detail on the Bureau of the Census methodology is available in the document "Methodology for Estimates of State and County Total Population," which is on the Internet at http://www.census.gov/population/methods/stco.txt

theme, "It's Utah's Future, Don't Leave It Blank."

Finally, GOPB is providing training, open to the public, through a series of data workshops designed to educate people on the importance of census data, as well as training them on how to access and use the data. GOPB prepared a report, which identifies $1.5 billion in federal funds that were distributed to Utah during fiscal year 1998, based on population figures.

Demographic Full Count Review

The Governor's Office of Planning and Budget is also participating in a program called Demographic Full Count Review. The purpose of this program is for members of the Federal-State Cooperative Program for Population Estimates to provide their demographic and analytic knowledge to assist the Census Bureau in reviewing and clearing Census 2000 data. To participate in this program, state employees must be sworn in as official Census Bureau employees. They will then be able to review pre-census and post-census data. This is the first time in U.S. history that persons from outside of the Census Bureau have been allowed to participate in the decennial census as it is taking place. Participation in this program will help ensure that the most accurate population counts for Utah are produced.

After the 2000 Census

Unadjusted state counts will be available to the public by December 31, 2000.[11] The Utah Population Estimates Committee plans to do two things once census counts are available:

1. Prepare New Intercensal Estimates
   - It is standard procedure once a large scale, high quality census provides a beginning point (1990) and an endpoint (2000) to revise the estimates in the between years. The Committee will evaluate its own estimates with the Bureau of the Census intercensal estimates to agree on the state's official intercensal estimates.

2. Evaluate Accuracy of Methods
   - Each method used by UPEC will be tested for its accuracy. A procedure known as "in sample" testing will be used to assess how UPEC's methods, building from 1990 counts, fared in reaching 2000 results. Accuracy will be considered method by method, the average of methods, and county by county.

Conclusion

This article has provided a historical and current description of the significant features of population change in Utah. Utah's high birth rates, low death rates, and migration trends have been highlighted, as have the patterns of population change in 1999 among Utah's multi-county districts and counties. To make data users more familiar with how population estimates are developed in Utah, UPEC and its methods have been discussed. The population estimates

[11] In the 2000 Census the Bureau will prepare two types of counts: 1) unadjusted counts, which are based on a direct enumeration of the population with no adjustment for over or undercount; and 2) adjusted counts which are based on the direct enumeration plus adjustments for the under or overcounts as measured by a post enumeration survey called the Accuracy and Coverage Evaluation Survey.

prepared by the Bureau of the Census and the methods it uses have also been described, with a brief comparison of how the Bureau's population estimates differ from those prepared by UPEC. For more information about Utah population data contact the Governor's Office of Planning and Budget.

Table 1
Utah Population Estimates and Components of Population Change: 1940 to 1999

Year	July 1st Population	Percent Change	Population Change	Net Migration	Net Migration as a Percent of Previous Year's Population	Natural Increase	Fiscal Year Births	Fiscal Year Deaths
1940	551,800					8,419	13,038	4,619
1941	551,000	-0.1%	-800	-9,631	-1.7%	8,831	13,293	4,462
1942	571,200	3.5%	20,200	10,231	1.9%	9,969	14,357	4,388
1943	640,000	10.8%	68,800	57,284	10.0%	11,516	16,182	4,666
1944	604,700	-5.8%	-35,300	-47,122	-7.4%	11,822	16,536	4,714
1945	589,100	-2.6%	-15,600	-26,992	-4.5%	11,392	15,937	4,545
1946	638,000	7.7%	48,900	36,649	6.2%	12,251	16,955	4,704
1947	636,000	-0.3%	-2,000	-19,178	-3.0%	17,178	21,905	4,727
1948	653,000	2.6%	17,000	943	0.1%	16,057	20,856	4,799
1949	670,800	2.7%	17,800	2,207	0.3%	15,593	20,354	4,761
1950	695,900	3.6%	25,100	8,966	1.3%	16,134	21,027	4,893
1951	706,100	1.4%	10,200	-6,842	-1.0%	17,042	21,801	4,759
1952	723,000	2.3%	16,900	-1,160	-0.2%	18,060	23,116	5,056
1953	739,000	2.2%	16,000	-2,889	-0.4%	18,889	23,573	4,684
1954	750,000	1.5%	11,000	-7,469	-1.0%	18,469	23,439	4,970
1955	783,000	4.2%	33,000	13,484	1.8%	19,516	24,584	5,068
1956	809,000	3.2%	26,000	6,348	0.8%	19,652	24,975	5,323
1957	826,000	2.1%	17,000	-3,139	-0.4%	20,139	25,443	5,304
1958	845,000	2.2%	19,000	-855	-0.1%	19,855	25,760	5,905
1959	870,000	2.9%	25,000	5,259	0.6%	19,741	25,610	5,869
1960	900,000	3.3%	30,000	9,947	1.1%	20,053	26,011	5,958
1961	936,000	3.8%	36,000	15,371	1.7%	20,629	26,560	5,931
1962	958,000	2.3%	22,000	1,817	0.2%	20,183	26,431	6,248
1963	974,000	1.6%	16,000	-3,317	-0.3%	19,317	25,648	6,331
1964	978,000	0.4%	4,000	-13,863	-1.4%	17,863	24,461	6,598
1965	991,000	1.3%	13,000	-3,553	-0.4%	16,553	23,082	6,529
1966	1,009,000	1.8%	18,000	2,810	0.3%	15,190	21,953	6,763
1967	1,019,000	1.0%	10,000	-6,350	-0.6%	16,350	23,030	6,680
1968	1,029,000	1.0%	10,000	-6,029	-0.6%	16,029	22,743	6,714
1969	1,047,000	1.7%	18,000	798	0.1%	17,202	24,033	6,831
1970	1,066,000	1.8%	19,000	612	0.1%	18,388	25,281	6,893
1971	1,101,000	3.2%	35,000	14,816	1.4%	20,184	27,400	7,216
1972	1,135,000	3.0%	34,000	14,096	1.3%	19,904	27,146	7,242
1973	1,169,000	2.9%	34,000	13,960	1.2%	20,040	27,562	7,522
1974	1,197,000	2.3%	28,000	6,621	0.6%	21,379	28,876	7,497
1975	1,234,000	3.0%	37,000	13,947	1.2%	23,053	30,566	7,513
1976	1,272,000	3.0%	38,000	11,611	0.9%	26,389	33,773	7,384
1977	1,316,000	3.3%	44,000	14,924	1.2%	29,076	36,707	7,631
1978	1,364,000	3.5%	48,000	17,420	1.3%	30,580	38,289	7,709
1979	1,416,000	3.7%	52,000	19,668	1.4%	32,332	40,216	7,884
1980	1,474,000	3.9%	58,000	24,486	1.7%	33,514	41,645	8,131
1981	1,515,000	2.7%	41,000	7,612	0.5%	33,388	41,509	8,121
1982	1,558,000	2.8%	43,000	9,662	0.6%	33,338	41,773	8,435
1983	1,595,000	2.3%	37,000	4,914	0.3%	32,086	40,555	8,469
1984	1,622,000	1.7%	27,000	-2,793	-0.2%	29,793	38,643	8,850
1985	1,643,000	1.3%	21,000	-7,714	-0.5%	28,714	37,664	8,950
1986	1,663,000	1.2%	20,000	-8,408	-0.5%	28,408	37,309	8,901
1987	1,678,000	0.9%	15,000	-11,713	-0.7%	26,713	35,631	8,918
1988	1,690,000	0.7%	12,000	-14,557	-0.9%	26,557	35,809	9,252
1989	1,706,000	0.9%	16,000	-10,355	-0.6%	26,355	35,439	9,084
1990	1,729,000	1.3%	23,000	-3,707	-0.2%	26,707	35,830	9,123
1991	1,775,000	2.6%	46,000	19,235	1.1%	26,765	36,194	9,429
1992	1,822,000	2.6%	47,000	19,763	1.1%	27,237	36,796	9,559
1993	1,866,000	2.4%	44,000	17,317	1.0%	26,683	36,738	10,055
1994	1,916,000	2.6%	50,000	22,788	1.2%	27,212	37,623	10,411
1995	1,959,350	2.2%	43,350	14,867	0.8%	28,483	39,064	10,581
1996	2,002,401	2.1%	43,051	13,557	0.7%	29,494	40,495	11,001
1997	2,048,753	2.3%	46,352	15,089	0.8%	31,263	42,512	11,249
1998	2,082,502	1.6%	33,749	1,271	0.1%	32,478	44,126	11,648
1999	2,121,053	1.9%	38,551	4,753	0.2%	33,798	45,434	11,636

Source: Utah Population Estimates Committee

Table 2
Components of Population Change in Utah by County and Multi-County District
July 1, 1998 and July 1, 1999

County/District	July 1 Population 1998	July 1 Population 1999	Population Change 1998-99 Numerical	Population Change 1998-99 Percent	Components of Change 1998-99 Births	Deaths	Natural Increase	Net Migration
Beaver	5,693	5,881	188	3.3%	128	57	71	117
Box Elder	40,927	41,732	805	2.0%	785	264	521	284
Cache	86,067	87,440	1,373	1.6%	2,075	380	1,695	-322
Carbon	21,649	21,422	-227	-1.0%	330	175	155	-382
Daggett	713	737	24	3.4%	11	4	7	17
Davis	229,393	235,438	6,045	2.6%	4,849	988	3,861	2,184
Duchesne	14,256	14,381	125	0.9%	307	85	222	-97
Emery	10,918	10,862	-56	-0.5%	152	61	91	-147
Garfield	4,482	4,550	68	1.5%	83	40	43	25
Grand	8,895	9,060	165	1.9%	94	53	41	124
Iron	30,495	31,518	1,023	3.4%	751	172	579	444
Juab	7,973	8,120	147	1.8%	193	60	133	14
Kane	6,078	6,144	66	1.1%	85	52	33	33
Millard	12,029	11,959	-70	-0.6%	182	107	75	-145
Morgan	7,101	7,262	161	2.3%	95	32	63	98
Piute	1,581	1,644	63	4.0%	20	14	6	57
Rich	1,793	1,835	42	2.3%	26	10	16	26
Salt Lake	837,860	843,271	5,411	0.6%	17,320	4,819	12,501	-7,090
San Juan	13,569	13,561	-8	-0.1%	233	52	181	-189
Sanpete	21,268	21,408	140	0.7%	390	133	257	-117
Sevier	18,612	18,884	272	1.5%	334	180	154	118
Summit	25,669	26,459	790	3.1%	413	96	317	473
Tooele	33,202	35,847	2,645	8.0%	807	205	602	2,043
Uintah	24,770	25,029	259	1.0%	429	151	278	-19
Utah	340,303	353,136	12,833	3.8%	9,489	1,419	8,070	4,763
Wasatch	13,317	13,711	394	3.0%	260	72	188	206
Washington	78,415	81,204	2,789	3.6%	1,738	662	1,076	1,713
Wayne	2,460	2,538	78	3.2%	42	28	14	64
Weber	183,014	186,020	3,006	1.6%	3,813	1,265	2,548	458
Bear River	128,787	131,007	2,220	1.7%	2,886	654	2,232	-12
Wasatch Front	1,290,570	1,307,838	17,268	1.3%	26,884	7,309	19,575	-2,307
Mountainland	379,289	393,306	14,017	3.7%	10,162	1,587	8,575	5,442
Six County	63,923	64,553	630	1.0%	1,161	522	639	-9
Five County	125,163	129,297	4,134	3.3%	2,785	983	1,802	2,332
Uintah Basin	39,739	40,147	408	1.0%	747	240	507	-99
Southeast	55,031	54,905	-126	-0.2%	809	341	468	-594
State	2,082,502	2,121,053	38,551	1.9%	45,434	11,636	33,798	4,753

Source: Utah Population Estimates Committee

Table 3
Population Estimates for Utah
by County and Multi-County District, Selected Years 1940 to 1999

	July 1 Population Estimates											Average Annual Growth Rates for the Period						
County/District	1940	1950	1960	1970	1980	1990	1995	1996	1997	1998	1999	1940s	1950s	1960s	1970s	1980s	1990-99	1998-99
Beaver	4,900	4,800	4,300	3,850	4,400	4,800	5,350	5,607	5,742	5,693	5,881	-0.2%	-1.1%	-1.1%	1.3%	0.9%	2.3%	3.3%
Box Elder	18,900	19,800	25,500	28,150	33,500	36,500	38,910	39,484	40,235	40,927	41,732	0.5%	2.6%	1.0%	1.8%	0.9%	1.5%	2.0%
Cache	29,900	33,600	36,100	42,550	57,700	70,500	80,259	82,098	84,186	86,067	87,440	1.2%	0.7%	1.7%	3.1%	2.0%	2.4%	1.6%
Carbon	18,700	24,800	21,200	15,750	22,400	20,200	21,054	21,420	21,643	21,649	21,422	2.9%	-1.6%	-2.9%	3.6%	-1.0%	0.7%	-1.0%
Daggett	600	400	1,200	650	750	700	768	803	753	713	737	-4.0%	11.6%	-5.9%	1.4%	-0.7%	0.6%	3.4%
Davis	15,500	31,200	65,600	99,600	148,000	188,000	216,020	219,644	224,307	229,393	235,438	7.2%	7.7%	4.3%	4.0%	2.4%	2.5%	2.6%
Duchesne	8,700	8,100	7,200	7,400	12,700	12,600	13,549	14,032	14,402	14,256	14,381	-0.7%	-1.2%	0.3%	5.5%	-0.1%	1.5%	0.9%
Emery	7,000	6,300	5,500	5,150	11,600	10,300	10,735	10,811	10,929	10,918	10,862	-1.0%	-1.3%	-0.7%	8.5%	-1.2%	0.6%	-0.5%
Garfield	5,300	4,100	3,500	3,150	3,700	3,950	4,308	4,386	4,525	4,482	4,550	-2.5%	-1.6%	-1.0%	1.6%	0.7%	1.6%	1.5%
Grand	2,200	1,900	6,400	6,600	8,250	6,600	8,352	8,801	8,830	8,895	9,060	-1.5%	12.9%	0.3%	2.3%	-2.2%	3.6%	1.9%
Iron	8,400	9,700	10,900	12,300	17,500	20,900	26,866	28,032	29,338	30,495	31,518	1.4%	1.2%	1.2%	3.6%	1.8%	4.7%	3.4%
Juab	7,400	5,900	4,500	4,600	5,550	5,800	7,149	7,444	7,702	7,973	8,120	-2.2%	-2.7%	0.2%	1.9%	0.4%	3.8%	1.8%
Kane	2,600	2,300	2,700	2,450	4,050	5,150	5,884	5,957	6,039	6,078	6,144	-1.2%	1.6%	-1.0%	5.2%	2.4%	2.0%	1.1%
Millard	9,700	9,300	7,900	7,050	9,050	11,300	11,931	11,958	12,068	12,029	11,959	-0.4%	-1.6%	-1.1%	2.5%	2.2%	0.6%	-0.6%
Morgan	2,600	2,500	2,800	4,050	4,950	5,550	6,497	6,693	6,875	7,101	7,262	-0.4%	1.1%	3.8%	2.0%	1.2%	3.0%	2.3%
Piute	2,200	1,900	1,400	1,150	1,350	1,250	1,424	1,508	1,534	1,581	1,644	-1.5%	-3.0%	-1.9%	1.6%	-0.8%	3.1%	4.0%
Rich	2,000	1,700	1,700	1,600	2,150	1,750	1,806	1,821	1,788	1,793	1,835	-1.6%	0.0%	-0.6%	3.0%	-2.0%	0.5%	2.3%
Salt Lake	213,700	279,000	387,800	461,500	625,000	728,000	806,280	818,860	830,627	837,860	843,271	2.7%	3.3%	1.8%	3.1%	1.5%	1.6%	0.6%
San Juan	4,600	5,300	8,900	9,700	12,400	12,600	13,494	13,215	13,541	13,569	13,561	1.4%	5.3%	0.9%	2.5%	0.2%	0.8%	-0.1%
Sanpete	15,900	13,800	11,100	11,000	14,800	16,300	19,240	19,999	20,581	21,268	21,408	-1.4%	-2.2%	-0.1%	3.0%	1.0%	3.1%	0.7%
Sevier	12,300	12,000	10,600	10,150	14,900	15,400	17,257	17,682	18,238	18,612	18,884	-0.2%	-1.2%	-0.4%	3.9%	0.3%	2.3%	1.5%
Summit	8,600	6,700	5,700	5,900	10,400	15,700	22,367	23,562	24,675	25,669	26,459	-2.5%	-1.6%	0.3%	5.8%	4.2%	6.0%	3.1%
Tooele	8,800	15,000	18,000	21,600	26,200	26,700	29,547	30,493	31,997	33,202	35,847	5.5%	1.8%	1.8%	1.9%	0.2%	3.3%	8.0%
Uintah	10,000	10,300	11,700	12,800	20,700	22,200	24,335	24,276	24,637	24,770	25,029	0.3%	1.3%	0.9%	4.9%	0.7%	1.3%	1.0%
Utah	56,900	83,000	108,300	139,300	220,000	266,000	307,741	317,881	330,803	340,303	353,136	3.8%	2.7%	2.5%	4.7%	1.9%	3.2%	3.8%
Wasatch	5,800	5,500	5,300	5,950	8,650	10,100	12,179	12,585	12,925	13,317	13,711	-0.5%	-0.4%	1.2%	3.8%	1.6%	3.5%	3.0%
Washington	9,200	9,800	10,400	13,900	26,400	49,100	68,475	72,892	76,348	78,415	81,204	0.6%	0.6%	2.9%	6.6%	6.4%	5.7%	3.6%
Wayne	2,300	2,200	1,700	1,450	1,950	2,150	2,298	2,390	2,440	2,460	2,538	-0.4%	-2.5%	-1.6%	3.0%	1.0%	1.9%	3.2%
Weber	57,100	85,000	112,100	126,700	145,000	159,000	175,276	178,066	181,045	183,014	186,020	4.1%	2.8%	1.2%	1.4%	0.9%	1.8%	1.6%
Bear River	50,800	55,100	63,300	72,300	93,350	108,750	120,976	123,404	126,209	128,787	131,007	0.8%	1.4%	1.3%	2.6%	1.5%	2.1%	1.7%
Wasatch Front	297,700	412,700	586,300	713,450	949,150	1,107,250	1,233,620	1,253,756	1,274,851	1,290,570	1,307,838	3.3%	3.6%	2.0%	2.9%	1.6%	1.9%	1.3%
Mountainland	71,300	95,200	119,300	151,150	239,050	291,800	342,287	354,027	368,403	379,289	393,306	2.9%	2.3%	2.4%	4.7%	2.0%	3.4%	3.7%
Six County	49,800	45,100	37,200	35,400	47,600	52,200	59,299	60,981	62,563	63,923	64,553	-1.0%	-1.9%	-0.5%	3.0%	0.9%	2.4%	1.0%
Five County	30,400	30,700	31,800	35,650	56,050	83,900	110,882	116,874	121,992	125,163	129,297	0.1%	0.4%	1.1%	4.6%	4.1%	4.9%	3.3%
Uintah Basin	19,300	18,800	20,100	20,850	34,150	35,500	38,652	39,111	39,792	39,739	40,147	-0.3%	0.7%	0.4%	5.1%	0.4%	1.4%	1.0%
Southeast	32,500	38,300	42,000	37,200	54,650	49,700	53,634	54,247	54,943	55,031	54,905	1.7%	0.9%	-1.2%	3.9%	-0.9%	1.1%	-0.2%
State	552,000	696,000	900,000	1,066,000	1,474,000	1,729,000	1,959,350	2,002,401	2,048,753	2,082,502	2,121,053	2.3%	2.6%	1.7%	3.3%	1.6%	2.3%	1.9%

Notes: The 1998 population numbers are revised from previous estimates

Before 1995, the Utah Population Estimates Committee rounded its population estimates

The average annual growth rate for a period is based on a discrete compounding formula which is available from The Governor's Office of Planning and Budget

Source: Utah Population Estimates Committee

Table 4
Utah Population Estimates by County and Multi-County District
An Average of Three Methods with Judgement in Selected Counties

			School Enrollment		LDS		IRS		Average of Three Methods		Estimate Based on Judgement in Select Counties	
County/District	July 1, 1998 Population	Natural Increase	July 1, 1999 Population	Implied Net Migration	July 1, 1999 Population	Implied Net Migration	July 1, 1999 Population	Implied Net Migration	July 1, 1999 Population	Implied Net Migration	July 1, 1999 Population	Implied Net Migration
Beaver	5,693	71	5,933	169	5,763	-1	5,946	182	5,881	117	5,881	117
Box Elder	40,927	521	41,713	265	41,598	150	41,885	437	41,732	284	41,732	284
Cache	86,067	1,695	87,618	-144	85,238	-2,524	87,262	-500	86,706	-1,056	87,440	-322
Carbon	21,649	155	21,490	-314	21,336	-468	21,440	-364	21,422	-382	21,422	-382
Daggett	713	7	743	23	743	23	724	4	737	17	737	17
Davis	229,393	3,861	236,738	3,484	233,816	562	235,760	2,506	235,438	2,184	235,438	2,184
Duchesne	14,256	222	14,424	-54	14,354	-124	14,364	-114	14,381	-97	14,381	-97
Emery	10,918	91	10,941	-68	10,782	-227	10,864	-145	10,862	-147	10,862	-147
Garfield	4,482	43	4,636	111	4,494	-31	4,521	-4	4,550	25	4,550	25
Grand	8,895	41	9,069	133	9,353	417	9,051	115	9,158	222	9,060	124
Iron	30,495	579	31,797	723	31,239	165	33,808	2,734	32,281	1,207	31,518	444
Juab	7,973	133	8,093	-13	8,042	-64	8,225	119	8,120	14	8,120	14
Kane	6,078	33	6,153	42	6,040	-71	6,240	129	6,144	33	6,144	33
Millard	12,029	75	11,955	-149	11,896	-208	12,025	-79	11,959	-145	11,959	-145
Morgan	7,101	63	7,399	235	7,200	36	7,188	24	7,262	98	7,262	98
Piute	1,581	6	1,665	78	1,612	25	1,655	68	1,644	57	1,644	57
Rich	1,793	16	1,878	69	1,798	-11	1,829	20	1,835	26	1,835	26
Salt Lake	837,860	12,501	843,870	-6,491	835,722	-14,639	850,220	-141	843,271	-7,090	843,271	-7,090
San Juan	13,569	181	13,769	19	13,349	-401	13,564	-186	13,561	-189	13,561	-189
Sanpete	21,268	257	21,382	-143	21,262	-263	21,579	54	21,408	-117	21,408	-117
Sevier	18,612	154	19,168	402	18,611	-155	18,872	106	18,884	118	18,884	118
Summit	25,669	317	26,402	416	25,940	-46	26,515	529	26,286	300	26,459	473
Tooele	33,202	602	36,201	2,397	35,705	1,901	35,634	1,830	35,847	2,043	35,847	2,043
Uintah	24,770	278	24,740	-308	24,835	-213	25,512	464	25,029	-19	25,029	-19
Utah	340,303	8,070	354,134	5,761	351,727	3,354	353,548	5,175	353,136	4,763	353,136	4,763
Wasatch	13,317	188	13,745	240	13,497	-8	13,892	387	13,711	206	13,711	206
Washington	78,415	1,076	80,749	1,258	80,968	1,477	81,895	2,404	81,204	1,713	81,204	1,713
Wayne	2,460	14	2,556	82	2,489	15	2,569	95	2,538	64	2,538	64
Weber	183,014	2,548	187,463	1,901	184,211	-1,351	186,387	825	186,020	458	186,020	458
Bear River	128,787	2,232	131,209	190	128,634	-2,385	130,975	-44	130,273	-746	131,007	-12
Wasatch Front	1,290,570	19,575	1,311,671	1,526	1,296,654	-13,491	1,315,188	5,043	1,307,838	-2,307	1,307,838	-2,307
Mountainland	379,289	8,575	394,281	6,417	391,164	3,300	393,955	6,091	393,133	5,269	393,306	5,442
Six County	63,923	639	64,819	257	63,912	-650	64,926	364	64,553	-9	64,553	-9
Five County	125,163	1,802	129,268	2,303	128,504	1,539	132,410	5,445	130,060	3,095	129,297	2,332
Uintah Basin	39,739	507	39,907	-339	39,932	-314	40,600	354	40,147	-99	40,147	-99
Southeast	55,031	468	55,269	-230	54,820	-679	54,919	-580	55,003	-496	54,905	-594
State	2,082,502	33,798	2,126,424	10,124	2,103,620	-12,680	2,132,972	16,672	2,121,007	4,707	2,121,053	4,753

Source: Utah Population Estimates Committee

Note: In most counties, the estimate is the average of the estimates produced from each of the three methods. Table 5 details the procedure used to develop the estimate when the average of the three methods was not used.

Table 5
Utah Population Estimates by County and Multi-County District
Outlier Analysis of Estimates Produced with Three Methods

County	July 1, 1998 Population	Natural Increase	July 1, 1999 Population Estimate			Outlier Analysis			No Outlier Average	Implied Net Migration
			School	LDS	IRS	School	LDS	IRS		
Beaver	5,693	71	5,933	5,763	5,946	5,933	5,763	5,946	5,881	117
Box Elder	40,927	521	41,713	41,598	41,885	41,713	41,598	41,885	41,732	284
Cache	86,067	1,695	87,618	85,238	87,262	87,618	Outlier	87,262	87,440	-322
Carbon	21,649	155	21,490	21,336	21,440	21,490	21,336	21,440	21,422	-382
Daggett	713	7	743	743	724	743	743	724	737	17
Davis	229,393	3,861	236,738	233,816	235,760	236,738	233,816	235,760	235,438	2,184
Duchesne	14,256	222	14,424	14,354	14,364	14,424	14,354	14,364	14,381	-97
Emery	10,918	91	10,941	10,782	10,864	10,941	10,782	10,864	10,862	-147
Garfield	4,482	43	4,636	4,494	4,521	4,636	4,494	4,521	4,550	25
Grand	8,895	41	9,069	9,353	9,051	9,069	Outlier	9,051	9,060	124
Iron	30,495	579	31,797	31,239	33,808	31,797	31,239	Outlier	31,518	444
Juab	7,973	133	8,093	8,042	8,225	8,093	8,042	8,225	8,120	14
Kane	6,078	33	6,153	6,040	6,240	6,153	6,040	6,240	6,144	33
Millard	12,029	75	11,955	11,896	12,025	11,955	11,896	12,025	11,959	-145
Morgan	7,101	63	7,399	7,200	7,188	7,399	7,200	7,188	7,262	98
Piute	1,581	6	1,665	1,612	1,655	1,665	1,612	1,655	1,644	57
Rich	1,793	16	1,878	1,798	1,829	1,878	1,798	1,829	1,835	26
Salt Lake	837,860	12,501	843,870	835,722	850,220	843,870	835,722	850,220	843,271	-7,090
San Juan	13,569	181	13,769	13,349	13,564	13,769	13,349	13,564	13,561	-189
Sanpete	21,268	257	21,382	21,262	21,579	21,382	21,262	21,579	21,408	-117
Sevier	18,612	154	19,168	18,611	18,872	19,168	18,611	18,872	18,884	118
Summit	25,669	317	26,402	25,940	26,515	26,402	Outlier	26,515	26,459	473
Tooele	33,202	602	36,201	35,705	35,634	36,201	35,705	35,634	35,847	2,043
Uintah	24,770	278	24,740	24,835	25,512	24,740	24,835	25,512	25,029	-19
Utah	340,303	8,070	354,134	351,727	353,548	354,134	351,727	353,548	353,136	4,763
Wasatch	13,317	188	13,745	13,497	13,892	13,745	13,497	13,892	13,711	206
Washington	78,415	1,076	80,749	80,968	81,895	80,749	80,968	81,895	81,204	1,713
Wayne	2,460	14	2,556	2,489	2,569	2,556	2,489	2,569	2,538	64
Weber	183,014	2,548	187,463	184,211	186,387	187,463	184,211	186,387	186,020	458
Total	2,082,502	33,798	2,126,424	2,103,620	2,132,972				2,121,053	4,753

Note: An estimate was termed outlier if it was more than 2 percent different from the average of the three methods. High outliers are 2 percent greater than average while low outliers are 2 percent less than average.

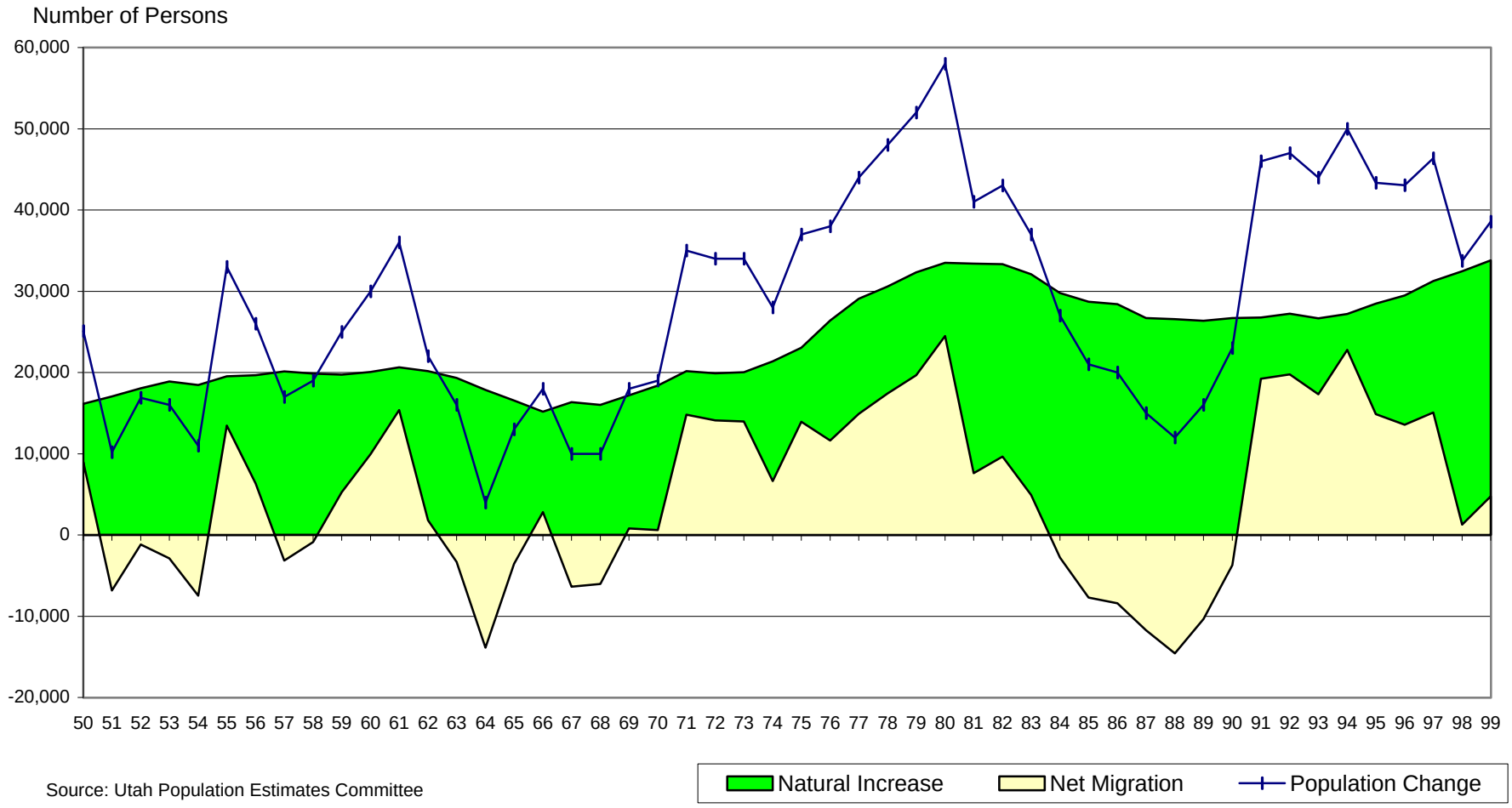
Source: Utah Population Estimates Committee

Table 6
Comparison of Bureau of the Census and Utah Population Estimates Committee
July 1 Utah Population Estimates by County and Mult-County District

	Utah Population Estimates Committee			Bureau of the Census			Numeric Difference			Percent Difference		
County/District	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
Beaver	5,742	5,693	5,881	5,863	5,901	6,006	-121	-208	-125	-2.1%	-3.7%	-2.1%
Box Elder	40,235	40,927	41,732	41,076	41,930	42,782	-841	-1,003	-1,050	-2.1%	-2.5%	-2.5%
Cache	84,186	86,067	87,440	85,797	87,227	87,328	-1,611	-1,160	112	-1.9%	-1.3%	0.1%
Carbon	21,643	21,649	21,422	20,908	21,021	20,898	735	628	524	3.4%	2.9%	2.4%
Daggett	753	713	737	748	722	717	5	-9	20	0.7%	-1.3%	2.7%
Davis	224,307	229,393	235,438	227,070	233,600	239,364	-2,763	-4,207	-3,926	-1.2%	-1.8%	-1.7%
Duchesne	14,402	14,256	14,381	14,261	14,514	14,759	141	-258	-378	1.0%	-1.8%	-2.6%
Emery	10,929	10,918	10,862	10,901	11,013	11,052	28	-95	-190	0.3%	-0.9%	-1.7%
Garfield	4,525	4,482	4,550	4,209	4,294	4,286	316	188	264	7.0%	4.2%	5.8%
Grand	8,830	8,895	9,060	8,103	8,070	8,193	727	825	867	8.2%	9.3%	9.6%
Iron	29,338	30,495	31,518	27,776	28,777	29,449	1,562	1,718	2,069	5.3%	5.6%	6.6%
Juab	7,702	7,973	8,120	7,257	7,602	7,794	445	371	326	5.8%	4.7%	4.0%
Kane	6,039	6,078	6,144	6,076	6,219	6,154	-37	-141	-10	-0.6%	-2.3%	-0.2%
Millard	12,068	12,029	11,959	12,273	12,280	12,420	-205	-251	-461	-1.7%	-2.1%	-3.9%
Morgan	6,875	7,101	7,262	6,906	7,032	7,204	-31	69	58	-0.5%	1.0%	0.8%
Piute	1,534	1,581	1,644	1,401	1,407	1,484	133	174	160	8.7%	11.0%	9.7%
Rich	1,788	1,793	1,835	1,820	1,858	1,918	-32	-65	-83	-1.8%	-3.6%	-4.5%
Salt Lake	830,627	837,860	843,271	841,692	845,913	850,243	-11,065	-8,053	-6,972	-1.3%	-1.0%	-0.8%
San Juan	13,541	13,569	13,561	13,548	13,640	13,603	-7	-71	-42	-0.1%	-0.5%	-0.3%
Sanpete	20,581	21,268	21,408	20,854	21,590	22,059	-273	-322	-651	-1.3%	-1.5%	-3.0%
Sevier	18,238	18,612	18,884	18,037	18,435	18,645	201	177	239	1.1%	1.0%	1.3%
Summit	24,675	25,669	26,459	25,655	26,798	27,692	-980	-1,129	-1,233	-4.0%	-4.4%	-4.7%
Tooele	31,997	33,202	35,847	31,501	33,474	35,801	496	-272	46	1.6%	-0.8%	0.1%
Uintah	24,637	24,770	25,029	25,430	25,637	25,959	-793	-867	-930	-3.2%	-3.5%	-3.7%
Utah	330,803	340,303	353,136	329,386	339,904	346,997	1,417	399	6,139	0.4%	0.1%	1.7%
Wasatch	12,925	13,317	13,711	12,764	13,273	13,767	161	44	-56	1.2%	0.3%	-0.4%
Washington	76,348	78,415	81,204	79,408	82,276	85,406	-3,060	-3,861	-4,202	-4.0%	-4.9%	-5.2%
Wayne	2,440	2,460	2,538	2,393	2,358	2,387	47	102	151	1.9%	4.1%	5.9%
Weber	181,045	183,014	186,020	182,284	183,797	185,469	-1,239	-783	551	-0.7%	-0.4%	0.3%
Bear River	126,209	128,787	131,007	128,693	131,015	132,028	-2,484	-2,228	-1,021	-2.0%	-1.7%	-0.8%
Wasatch Front	1,274,851	1,290,570	1,307,838	1,289,453	1,303,816	1,318,081	-14,602	-13,246	-10,243	-1.1%	-1.0%	-0.8%
Mountainlands	368,403	379,289	393,306	367,805	379,975	388,456	598	-686	4,850	0.2%	-0.2%	1.2%
Six County	62,563	63,923	64,553	62,215	63,672	64,789	348	251	-236	0.6%	0.4%	-0.4%
Five County	121,992	125,163	129,297	123,332	127,467	131,301	-1,340	-2,304	-2,004	-1.1%	-1.8%	-1.5%
Uintah Basin	39,792	39,739	40,147	40,439	40,873	41,435	-647	-1,134	-1,288	-1.6%	-2.9%	-3.2%
Southeast	54,943	55,031	54,905	53,460	53,744	53,746	1,483	1,287	1,159	2.7%	2.3%	2.1%
State	2,048,753	2,082,502	2,121,053	2,065,397	2,100,562	2,129,836	-16,644	-18,060	-8,783	-0.8%	-0.9%	-0.4%

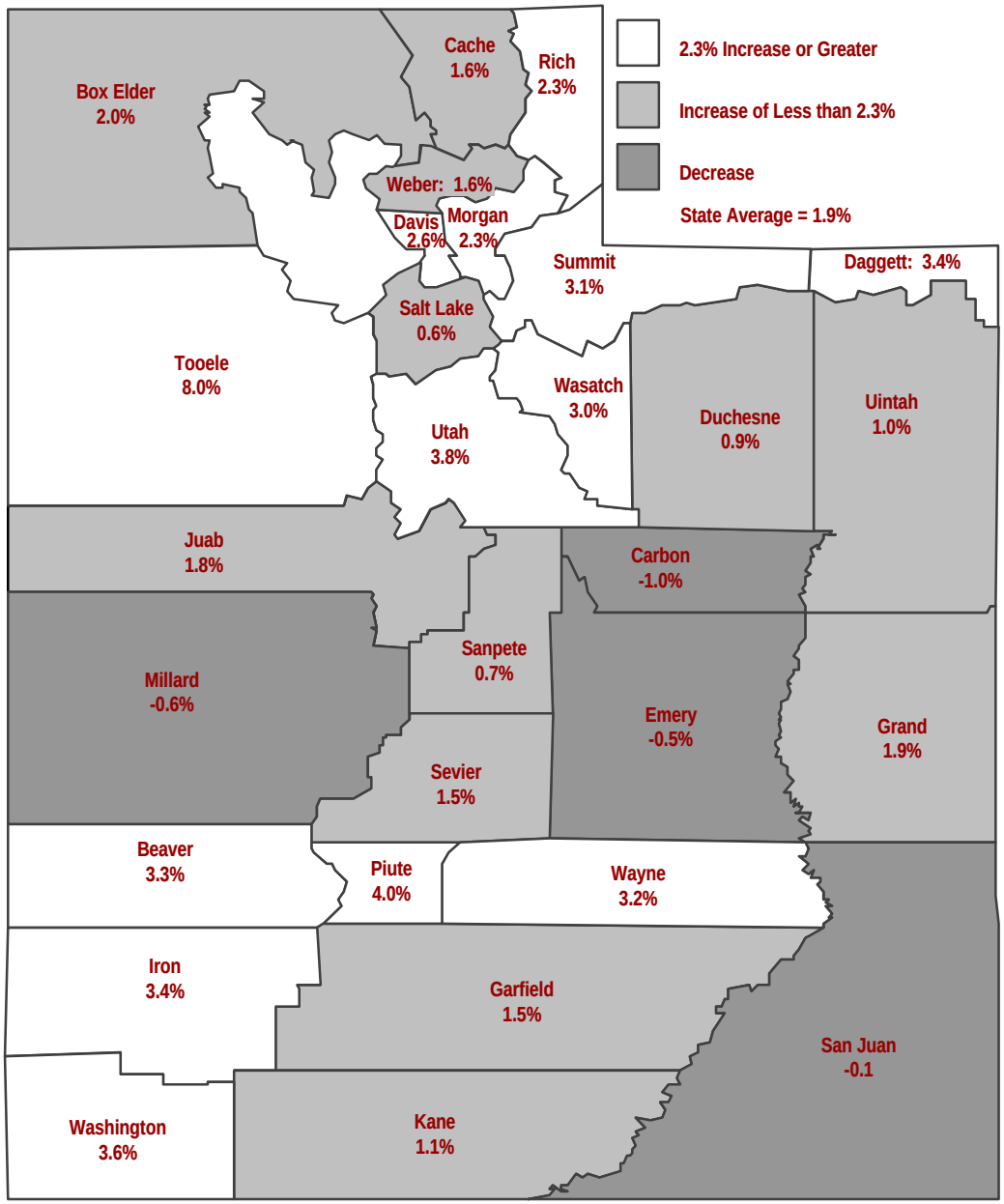
Source: Utah Population Estimates Committee and the U.S. Bureau of the Census

Figure 1
Components of Utah Population Change: Natural Increase and Net Migration
1950 to 1999



Source: Utah Population Estimates Committee

Figure 2
Utah Population Growth Rates by County: 1998 to 1999



Source: Utah Population Estimates Committee

Utah Population Estimates Committee

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